



AIR QUALITY FORECAST FOR SATURDAY, AUG 21, 2004

This report is updated by 1:00 p.m. Sunday thru Friday and is valid for areas within and bordering Maricopa County in Arizona

FORECAST DATE	YESTERDAY THU 08/19/2004	TODAY FRI 08/20/2004	TOMORROW SAT 08/21/2004	EXTENDED SUN 08/22/2004
NOTICES (*SEE BELOW FOR DETAILS)	NONE	NONE	NONE	NONE
AIR POLLUTANT	Highest AQI Reading/Site (Preliminary data only)			
O3*	45 Humboldt Mountain	69 MODERATE	64 MODERATE	66 MODERATE
CO*	15 Greenwood	15 GOOD	16 GOOD	18 GOOD
PM-10*	39 Durango	48 GOOD	48 GOOD	45 GOOD
PM-2.5*	19 Phoenix Supersite	24 GOOD	23 GOOD	21 GOOD

* O3 = Ozone * CO = Carbon Monoxide * PM-10 = Particles 10 microns & smaller * PM-2.5 = Particles smaller than 2.5 microns

*"Ozone Health Watch" means that the highest concentration of OZONE may approach the federal health standard.

*"PM-10 Health Watch" means that the highest concentration of PM-10 may approach the federal health standard.

*"High Pollution Advisory" means that the highest concentration of OZONE, PM-10, or PM-2.5 may exceed the federal health standard.

*"DUST" means that short periods of high PM-10 concentrations in dust storms – caused by outflow from thunderstorms – are possible.

Health message for Friday, Aug 20: Unusually sensitive people should consider reducing prolonged or heavy exertion outdoors.

Health message for Saturday, Aug 21: Unusually sensitive people should consider reducing prolonged or heavy exertion outdoors.

Synopsis and Discussion

What a week it's been! Good storms moved through the valley on 4 consecutive nights. Rain amounts varied, but just about everyone saw some wet stuff... including Sky Harbor (0.36inches so far this month), the official rain gage for Phoenix. Great lightning shows, too! Moisture has decreased across Arizona the past 24-hours, however. An area of low pressure off the coast of San Francisco along with another smaller one moving southeast into northern Nevada are working together to suppress our ridge of high pressure. This is good in the sense that temperatures will only be around 100-103°F in the desert this weekend, but the monsoon flow will pack its luggage and take another break, at least into the middle part of next week. Speaking of Good, all pollutants in the valley recorded Good values Thursday. Ozone levels were down, but with the sunshine and light west winds, they could pop right back into the low-to-mid Moderate category this weekend. What a *good* summer it's been so far. Only 11 days so far at 110°F or above, compared to 23 to this point last year. Ozone-wise, we've still only had one 8-hr exceedence compared to 6 days through this time last year. We still have another month and a half of potential, though. We'll keep you posted as things change. Don't just have a *good* weekend... have an **incredible** weekend! –J.Paul

MONITORING SITE MAPS: STATIC MAP - <http://www.azdeq.gov/environ/air/monitoring/images/04.jpg>

INTERACTIVE MAPS - http://www.maricopa.gov/envsvc/air/ozair_map.asp

<http://www.epa.gov/airnow/index.html>



POLLUTION MONITOR READINGS FOR THURSDAY, AUGUST 19, 2004



O3 (OZONE)

For maps go to: <http://www.epa.gov/airnow/west1.html>

SITE NAME	MAX 8-HR VALUE (PPB)	MAX AQI	AQI COLOR CODE
Apache Junction	39	30	
Blue Point	48	38	
Buckeye	50	39	
Casa Grande	52	41	
Cave Creek	47	37	
Central Phoenix	41	32	
Dysart	45	35	
Falcon Field	45	35	
Fountain Hills	45	35	
Glendale	49	38	
Hillside	53	41	
Humboldt Mountain	57	45	
Maricopa	55	43	
North Phoenix	48	38	
Palo Verde	56	44	
Phoenix Supersite	54	42	
Pinal Air Park	44	34	
Pinnacle Peak	51	40	
Queen Creek	42	33	
Queen Valley	49	38	
Rio Verde	42	33	
South Phoenix	49	38	
South Scottsdale	47	37	
Tempe	43	34	
Tonto National Monument	45	35	
West Chandler	50	39	

West Phoenix	54	42	
Yuma	47	37	

CO (CARBON MONOXIDE)

SITE NAME	MAX 8-HR VALUE (PPM)	MAX AQI	AQI COLOR CODE
Buckeye	0.2	2	
Central Phoenix	0.5	6	
Greenwood	1.3	15	
Phoenix Supersite	0.8	9	
West Indian School	0.8	9	
West Phoenix	0.5	6	

PM-10 (PARTICLES)

SITE NAME	MAX 24-HR VALUE (ug/m3)	MAX AQI	AQI COLOR CODE
Central Phoenix	18.1	16	
Durango	42.3	39	
Phoenix Supersite	17.5	16	

PM-2.5 (PARTICLES)

(Data derived from light-scattering equipment)

For maps go to: <http://www.airnowdata.org/pmfine/latest.html>

SITE NAME	MAX 24-HR VALUE (ug/m3)	MAX AQI	AQI COLOR CODE
Dysart	5.5	18	
Estrella Mtn Park	5.4	18	
Phoenix Supersite	5.9	19	
Veh Emissions Lab	5.6	18	

LOCAL AIR POLLUTANTS IN DETAIL



O3 (OZONE):

Description – This is a secondary pollutant that is formed by the reaction of other primary pollutants (precursors) such as VOCs (volatile organic compounds) and NO_x (Nitrogen Oxides) in the presence of heat and sunlight.

Sources – VOCs are emitted from motor vehicles, chemical plants, refineries, factories, and other industrial sources. NO_x is emitted from motor vehicles, power plants, and other sources of combustion.

Potential health impacts – Exposure to ozone can make people more susceptible to respiratory infection, result in lung inflammation, and aggravate pre-existing respiratory diseases such as asthma. Other effects include decrease in lung function, chest pain, and cough.

Unit of measurement – Parts per billion (ppb).

Averaging interval – Highest eight-hour period within a 24-hour period (midnight to midnight).

Reduction tips – Curtail daytime driving, refuel cars and use gasoline-powered equipment as late in the day as possible.

CO (CARBON MONOXIDE):

Description – A colorless, odorless, poisonous gas formed when carbon in fuels is not burned completely.

Sources – In cities, as much as 95 percent of all CO emissions emanate from automobile exhaust. Other sources include industrial processes, non-transportation fuel combustion, and natural sources such as wildfires. Peak concentrations occur in colder winter months.

Potential health impacts – Reduces oxygen delivery to the body's organs and tissues. The health threat is most serious for those who suffer from cardiovascular disease.

Unit of measurement – Parts per million (ppm).

Averaging interval – Highest eight-hour period within a 24-hour period (midnight to midnight)

Reduction tips – Keep motor vehicle tuned properly and minimize nighttime driving.

PM-10 & PM-2.5 (PARTICLES):

Description – The term “particulate matter” (PM) includes both solid particles and liquid droplets found in air. Many manmade and natural sources emit PM directly or emit other pollutants that react in the atmosphere to form PM. Particles less than 10 micrometers in diameter tend to pose the greatest health concern because they can be inhaled into and accumulate in the respiratory system. Particles less than 2.5 micrometers in diameter are referred to as “fine” particles and are responsible for many visibility degradations such as the “Valley Brown Cloud” (see <http://www.phoenixvis.net/>). Particles with diameters between 2.5 and 10 micrometers are referred to as “coarse”.

Sources – Fine = All types of combustion (motor vehicles, power plants, wood burning, etc.) and some industrial processes. Coarse = crushing or grinding operations and dust from paved or unpaved roads.

Potential health impacts – PM can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases, such as asthma and chronic bronchitis.

Units of measurement – Micrograms per cubic meter (ug/m³)

Averaging interval – 24 hours (midnight to midnight).

Reduction tips – Stabilize loose soils, slow down on dirt roads, carpool, and use public transit.